

CLAIMS

We claim:

1. A method comprising:

- 5 (a) moving a gate adjacent an opening in an automated banking machine including a cash dispenser, between an open position and a closed position through operation of a drive, wherein in the open position at least one item is enabled to pass through the opening and in the closed position the opening is blocked by the gate;
- 10 (b) during at least a portion of (a), monitoring at least one parameter of the drive;
- (c) analyzing the at least one parameter monitored in (b) as a function of time through operation of at least one controller in the machine;

(d) operating the at least one controller to cause the machine to attempt at least one action responsive to (c).

2. The method according to claim 1 wherein (d) includes attempting to move the gate.

5 3. The method according to claim 2 wherein (d) includes vibrating the gate through operation of the drive.

4. The method according to claim 3 wherein (d) includes heating the gate.

5. The method according to claim 4 wherein (d) includes applying de-icing material to the gate.

10 6. The method according to claim 5 wherein (d) includes contacting a third party remote from the machine.

7. The method according to claim 6 wherein (d) includes capturing data corresponding to at least one image produced by an image capture device.

8. The method according to claim 7 wherein (d) includes transmitting data corresponding to at least one image, to a remote location.

9. The method according to claim 8 wherein in (d) the at least one parameter monitored is current drawn by the at least one drive.

5 10. The method according to claim 9 wherein (c) comprises determining at least one sensed profile of current versus time.

11. The method according to claim 10 wherein (c) includes comparing the at least one sensed profile to an expected profile that corresponds to normal operation of the gate.

10 12. The method according to claim 11 wherein in (d) the at least one action that is attempted is selected from among a plurality of possible actions responsive to at least one manner in which the at least one sensed profile varies from the expected profile.

13. The method according to claim 12 wherein (c) includes determining the relative location between the open and closed positions of the gate when the gate encounters resistance to movement.

14. The method according to claim 12 wherein in (a) the gate moves from the open position to the closed position, and wherein (c) includes determining if the gate has encountered a hard or soft item in moving toward the closed position.

5 15. The method according to claim 14 wherein the gate is operative to control access to a deposit accepting transport, and wherein the machine includes a deposit holding container, and wherein a movable deposit gate is movable in the machine between the transport and the deposit holding container, and wherein (d) includes attempting to move the deposit gate to block an area between the transport and the container.

16. The method according to claim 15 and further comprising:

10 (e) sensing an object with at least one sensor adjacent the transport;

(f) determining through the at least one controller that the object has been sensed in other than in an expected sequence;

wherein the deposit gate is closed in (d) responsive to (f).

15 17. The method according to claim 1 wherein in (b) the at least one parameter monitored is current drawn by the at least one drive.

18. The method according to claim 1 wherein (c) comprises determining at least one sensed profile of the at least one parameter versus time.

19. The method according to claim 18 wherein (c) includes comparing the at least one sensed profile to an expected profile that corresponds to normal operation.

5 20. The method according to claim 19 wherein in (d) the at least one action that is attempted is selected by the at least one controller from among a plurality of possible actions that may be attempted responsive to at least one manner in which the at least one sensed profile varies from the expected profile.

10 21. The method according to claim 1 wherein in (a) the gate moves from the open position toward the closed position, and wherein (c) includes determining relatively between the open and closed positions where the gate encounters resistance to closing.

 22. The method according to claim 1 wherein in (a) the gate moves from the open position towards a closed position, and wherein (c) includes determining if the gate has encountered a hard or soft obstruction in attempting to move toward the closed position.

15 23. The method according to claim 22 wherein in (d) the action is taken depending on whether the gate has encountered a hard or soft obstruction as determined in (c).

24. The method according to claim 1 wherein the opening is a deposit opening through which deposit items are received in the machine, and further comprising prior to (a),

- (e) opening the gate to receive a deposit item;
- (f) sensing with at least one sensor on the machine that the deposit item has been received in the machine;

wherein in (a) the gate is moved from the open position toward the closed position.

25. The method according to claim 1 wherein the opening is a deposit opening in the machine through which empty envelopes are dispensed to users of the machine, and further comprising prior to (a),

- (e) opening the gate to deliver an empty deposit envelope from the machine;
- (f) sensing through at least one sensor on the machine that the empty deposit envelope has been taken from the machine;

wherein in (a) the gate is moved from the open position towards the closed position.

26. The method according to claim 1 and further comprising an item transport extending in the machine, wherein items are moved in the machine at least one of to and from the opening through the item transport, and a plurality of sensors in the item transport, and further comprising:

- (e) sensing at least one item in the machine with at least one sensor;
- (f) determining if the item is expected to be sensed at the time it is sensed through operation of the at least one controller;
- (g) responsive to determining in (f) that the item is not expected to be sensed at the time it is sensed, operating the at least one controller to cause at least one programmed action to be taken.

27. The method according to claim 26 wherein the at least one controller is operative to cause at least one transaction function to be executed, and has in stored relation with the at least one controller at least one sequence of events expected to be sensed by sensors in executing

the transaction function, and wherein (f) includes determining if an item is sensed other than in the at least one sequence.

28. The method according to claim 26 wherein the machine includes a deposit holding container therein, and a movable deposit gate movable to control access to the deposit holding
5 container through an opening, and wherein (g) includes closing the deposit gate.

29. The method according to claim 1 wherein (e) includes vibrating the gate through operation of the drive.

30. The method according to claim 1 wherein (d) includes heating the gate.

31. The method according to claim 1 wherein (d) includes applying de-icing material
10 to the gate.

32. The method according to claim 1 wherein (d) includes contacting a third party remote from the machine.

33. The method according to claim 1 wherein (d) includes capturing data corresponding to at least one image through operation of an image capture device.

34. The method according to claim 1 wherein (d) includes transmitting data corresponding to at least one image to a remote location.